COHERENT

Software Installation and Quick Start Guide

PowerMax™-USB/RS

Sensor System

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Software Installation and Quick Start Guide

PowerMax-USB/RS

Sensor System

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Preface

This guide includes:

- Installation instructions for the PowerMax PC software and driver—a program that provides an easy-to-use interface between a Coherent PowerMax-USB or PowerMax-RS meterless sensor, and a PC.
- A separate Quick Start section that explains how to connect a PowerMax sensor to a PC and begin taking measurements within minutes.

For detailed information on PowerMax PC software and the PowerMax-USB/RS sensor system, refer to the *PowerMax-USB/RS Sensor System User Manual* (part number 1169780), available in Adobe® PDF format on the installation CD that shipped with your system.

Publication Updates

To view information that may have been added or changed since this publication went to print, connect to www.Coherent.com.

System Requirements

- 600 MHz or faster processor
- Microsoft® Windows XP® 32-bit (with Service Pack 2), or Windows Vista® 32- or 64-bit
- 512 MB of RAM
- 190 MB of free hard disk space
- CD-ROM drive
- USB and/or RS-232 port
- 1024x768 screen resolution

Symbols Used in This Document

This symbol is intended to alert the operator to the presence of exposure to hazardous visible and invisible laser radiation.

This symbol is intended to alert the operator to the presence of important operating and maintenance instructions.

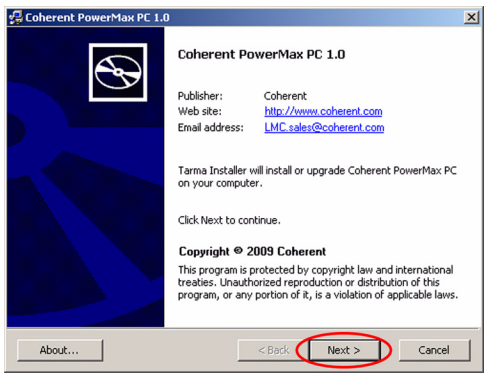
SOFTWARE INSTALLATION

This section explains how to install the PowerMax PC software and driver on Windows XP™ and Windows Vista™ (32- and 64-bit) systems.

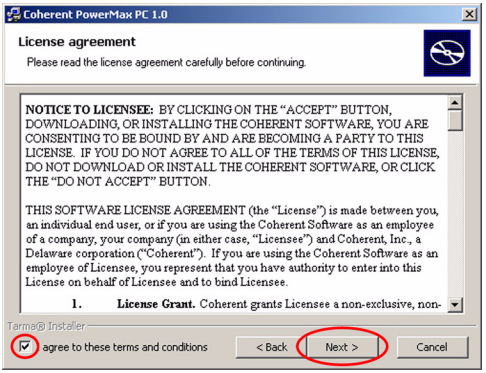
Install the PowerMax PC software and driver *before* physically connecting a PowerMax-USB sensor to the computer.

Step 1: Insert the PowerMax PC Installation CD into your CD-ROM drive. If Autorun is enabled on your system, installation will start automatically; otherwise, browse to your CD-ROM drive (typically, **D:**) and double-click **Setup.exe**.

Step 2: The first installation screen provides copyright and other software information. Click **Next** to continue.


Coherent PowerMax PC 1.0
Coherent PowerMax PC 1.0
Publisher: Coherent
Web site: http://www.coherent.com
Email address: LMC.sales@coherent.com
Tarma Installer will install or upgrade Coherent PowerMax PC on your computer.
Click Next to continue.
Copyright © 2009 Coherent
This program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, is a violation of applicable laws.
About...
< Back
Next >
Cancel

Step 3: Read the License Agreement. Check the "I agree to these terms and conditions" box and then click **Next**.


Coherent PowerMax PC 1.0
License agreement
Please read the license agreement carefully before continuing.
NOTICE TO LICENSEE: BY CLICKING ON THE "ACCEPT" BUTTON, DOWNLOADING, OR INSTALLING THE COHERENT SOFTWARE, YOU ARE CONSENTING TO BE BOUND BY AND ARE BECOMING A PARTY TO THIS LICENSE. IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS LICENSE, DO NOT DOWNLOAD OR INSTALL THE COHERENT SOFTWARE, OR CLICK THE "DO NOT ACCEPT" BUTTON.
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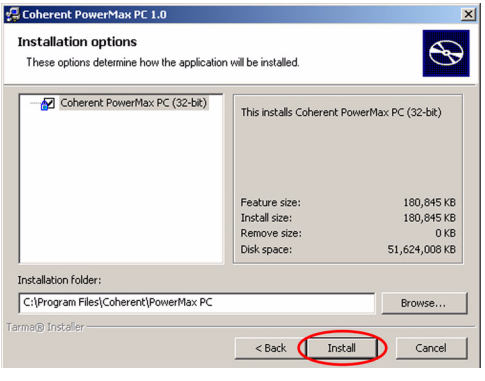
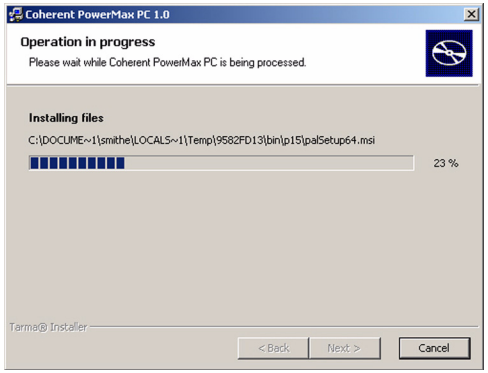
1. License Grant. Coherent grants Licensee a non-exclusive, non-
Tarma® Installer
I agree to these terms and conditions
< Back
Next >
Cancel

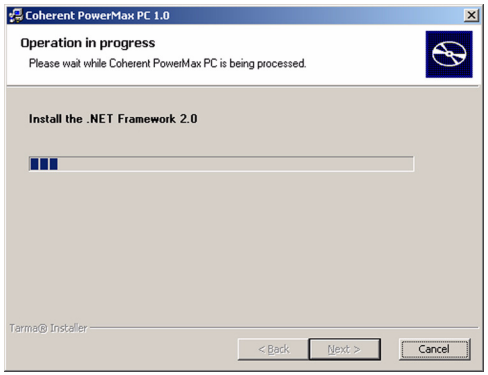
Step 4: This screen provides general information about the software, including which folder will be used for the installation. You can either *browse* to select a different installation folder, or accept the default location (recommended). Click **Install** to start the installation.



This screen displays the overall progress of the installation.

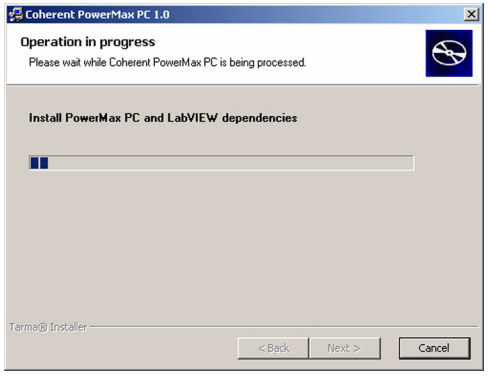


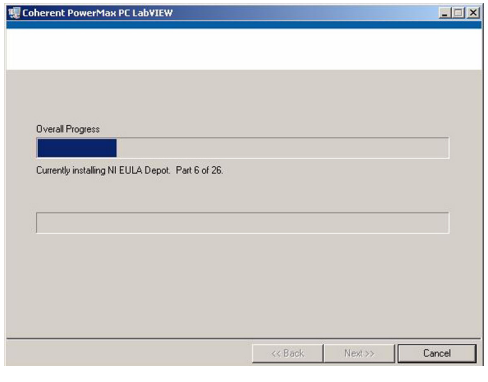
If Microsoft .NET Framework 2.0 or greater is not already on your computer, a series of screens—similar to the one shown below—will appear while .NET Framework is being installed. *These screens require no user interaction*.


Coherent PowerMax PC 1.0
Operation in progress
Please wait while Coherent PowerMax PC is being processed.
Install the .NET Framework 2.0
Tarma® Installer
< Back
Next >
Cancel

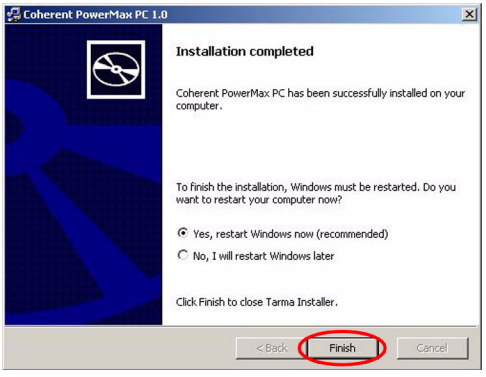
PowerMax PC requires that Microsoft .NET Framework 2.0 or greater be installed on your computer.

A series of screens—similar to the two shown below—will appear while LabVIEW™ components are being installed. *These screens require no user interaction*. During this process, a PowerMax PC shortcut is added to your desktop.


Coherent PowerMax PC 1.0
Operation in progress
Please wait while Coherent PowerMax PC is being processed.
Install PowerMax PC and LabVIEW dependencies
Tarma® Installer
< Back
Next >
Cancel



Step 5: Click **Finish** to complete the installation.


Coherent PowerMax PC 1.0
Installation completed
Coherent PowerMax PC has been successfully installed on your computer.
To finish the installation, Windows must be restarted. Do you want to restart your computer now?
Yes, restart Windows now (recommended)
No, I will restart Windows later
Click Finish to close Tarma Installer.
< Back
Finish
Cancel

QUICK START

This section presents two "mini-tutorials" that explain how to connect a PowerMax-USB or PowerMax-RS sensor to your PC and begin taking measurements using the PowerMax PC software.

For instructions on communicating with the sensor directly via host commands, refer to the "Host Interface" section of the *PowerMax-USB/RS Sensor System User Manual* (part number 1169780). That manual is available in Adobe® PDF format on the installation CD that shipped with your system.

Tutorials include:

- Measuring power with a PowerMax-USB thermopile sensor.
- Measuring power with a PowerMax-RS thermopile sensor.

Follow all laser safety procedures. The laser must be switched OFF or shuttered before running the tutorials presented in this section.

Measuring Power With a PowerMax-USB Thermopile Sensor

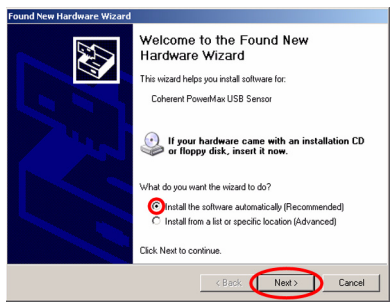
This tutorial describes how to take a power measurement using a PowerMax-USB thermopile sensor.

Verify the laser is switched OFF or shuttered before starting this tutorial.

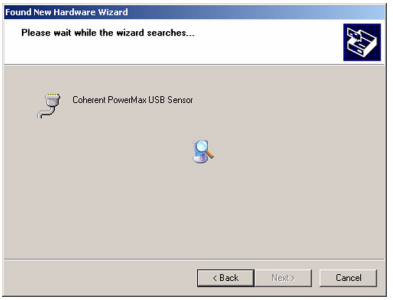
1. Install the PowerMax PC software (for detailed installation instructions, refer to "Software Installation" on page 1).

2. Plug in the PowerMax-USB sensor.

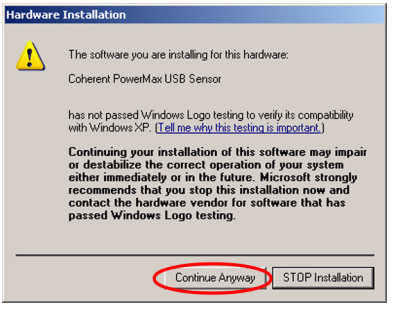
3. When the Found New Hardware Wizard screen appears, click "Install the software automatically (Recommended)" and then click the **Next** button to continue.


Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Coherent PowerMax USB Sensor
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

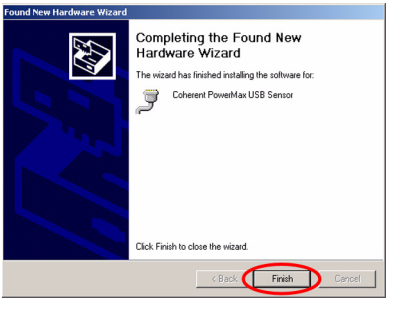
This screen display while the installation program searches for the PowerMax-USB sensor.



4. Click the **Continue Anyway** button to proceed with the installation.


Hardware Installation
The software you are installing for this hardware:
Coherent PowerMax USB Sensor
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

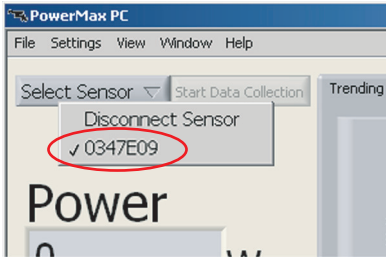
5. Click **Finish** to complete the installation.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Coherent PowerMax USB Sensor
Click Finish to close the wizard.
< Back
Finish
Cancel

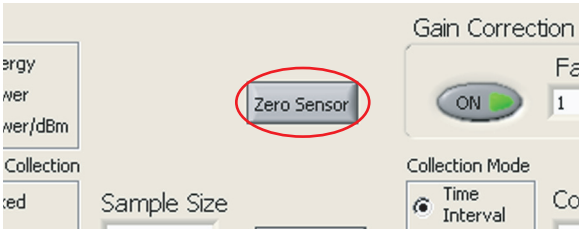
6. Confirm the blue LEDs on the USB connector are lit and slowly ramping up and down in intensity (which signifies the sensor is working and the driver is properly loaded).

7. Run the PowerMax PC software.

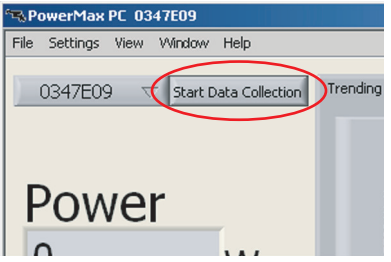
8. Select the sensor serial number from the Select Sensor dropdown menu. In the example at right, the selected sensor serial number is *0347E09*.



9. Press the **Zero Sensor** button to zero out any offset in the sensor.



10. Press the **Start Data Collection** button and then turn ON the laser to begin taking power measurements.



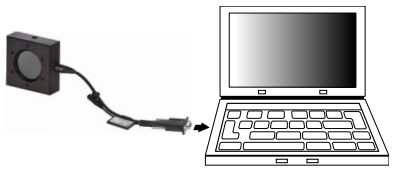
Measuring Power With a PowerMax-RS Thermopile Sensor

This tutorial explains how to take a power measurement using a PowerMax-RS thermopile sensor.

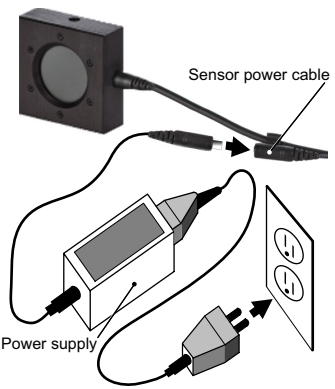
Verify the laser is switched OFF or shuttered before starting this tutorial.

1. Install the PowerMax PC software (for detailed installation instructions, refer to "Software Installation" on page 1).

2. Plug the PowerMax-RS sensor into an available RS-232 COM port on the computer.



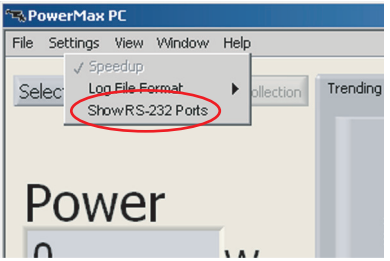
3. Plug the +5V DC power supply cable into the sensor power cable and the power supply into a wall electrical outlet. (The power supply is available from Coherent as an optional accessory—part number 1105557.)



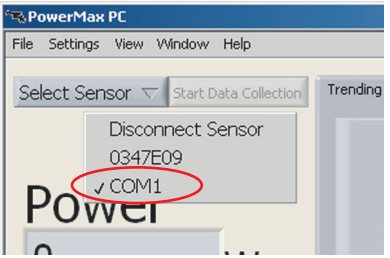
4. Confirm the blue LEDs on the RS connector are lit and slowly ramping up and down in intensity (which signifies the sensor is working and the driver is properly loaded).

5. Run the PowerMax PC software.

6. Click **Show RS-232 Ports** from the Settings dropdown menu. The software will scan COM ports for PowerMax-RS sensors.

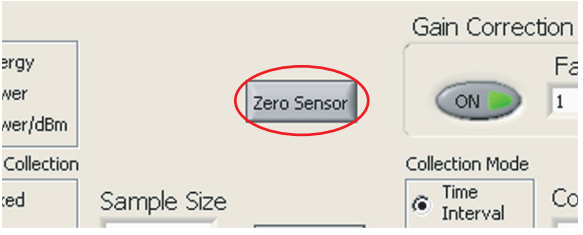


7. Select the COM port to which the PowerMax-RS sensor is attached. In the example at right, the selected COM port is *COM1*.

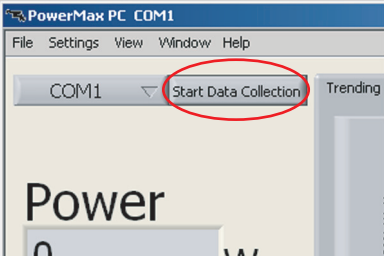


8. Insert the sensor into the beam path, *making sure the laser is turned OFF or shuttered until the sensor is zeroed*.

9. Press the **Zero Sensor** button to zero out any offset in the sensor.



10. Press the **Start Data Collection** button and then turn ON the laser to begin taking power measurements.



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